

The 1.5000 round shaft stock was cut to nominal length. The stock was then faced off on a lathe. The shaft was then turned to size. The threaded end was threaded to size.

The shaft was then turned to a press fit with a shoulder as a seat on the opposite end (refer to Fig 2 drawing - Main Swing Arm Shaft).

The last step was to quality check all components, then press the three shaft components into the plate with a 50 ton press and weld them from the back side (refer to Fig. 00 drawing - System Assembly.)

CLAIM

I claim that my invention is a swing arm system assembly that allows for the fitment of a motorcycle type wheel to be retrofitted to any motorcycle sidecar chassis with a existing swing arm chassis design that currently utilizes a 13-inch diameter trailer lug type wheel or less.

ABSTRACT OF THE DISCLOSURE

Prior to me inventing this system, sidecar manufacturers were limited to two basic chassis designs. The hard chassis leaf spring/buggy type design allows for the fitment of a motorcycle type wheel that will match the motorcycle, however it has proved dangerous, because of the high ground clearance. This designed has been used by several sidecar manufacturers and was introduced in the early 1900's. At that point in time a motorcycle fitted with a sidecar would travel at between 45 and 50mph. Although improvements have been made on the basic design over the years, it is not conducive to modern day speeds and advanced technology in the industry.

This invention affords the ability to easily retrofit a system assembly to a modern day sidecar swing arm chassis utilizing a 13-inch diameter or less trailer lug type wheel, which allows the fitment of a motorcycle type wheel.

The Chelsea Swing Arm System Assembly retains the very low ground clearance (lower center of gravity) as a 13-inch diameter or less trailer lug type wheel used in conjunction with the modern day safer swing arm chassis concept. The lower to the ground the sidecar rides, the less chance of wheel lifting in turns or wind lift at today's higher speeds. A larger circumference wheel and tire also add significant stability as there is more tire surface on the road. The system also allows the more aesthetically friendly wheel matching capability that sidecar motorcyclist prefer. It was to these ends that The Chelsea Swing Arm System Assembly was invented.



provisional application file but may not be entered.

37 CFR 1.152 Design drawings

The design must be represented by a drawing that complies with the requirements of § 1.84 and must contain a sufficient number of views to constitute a complete disclosure of the appearance of the design. Appropriate and adequate surface shading should be used to show the character or contour of the surfaces represented. Solid black surface shading is not permitted except when used to represent the color black as well as color contrast. Broken lines may be used to show visible environmental structure, but may not be used to show hidden planes and surfaces that cannot be seen through opaque materials. Alternate positions of a design component, illustrated by full and broken lines in the same view are not permitted in a design drawing. Photographs and ink drawings are not permitted to be combined as formal drawings in one application. Photographs submitted in lieu of ink drawings in design patent applications must not disclose environmental structure but must be limited to the design claimed for the article.

37 CFR 1.153 Title, description and claim, oath or declaration

(a) The title of the design must designate the particular article. No description, other than a reference to the drawing, is ordinarily required. The claim shall be in formal terms to the ornamental design for the article (specifying name) as shown, or as shown and described. More than one claim is neither required nor permitted.

(b) The oath or declaration required of the applicant must comply with § 1.63.

37 CFR 1.154 Arrangement of application elements in a design application

(a) The elements of the design application, if applicable, should appear in the following order:

- (1) Design application transmittal form.
- (2) Fee transmittal form.
- (3) Application data sheet (see § 1.76).
- (4) Specification.
- (5) Drawings or photographs.
- (6) Executed oath or declaration (see § 1.153(b)).

(b) The specification should include the following sections in order:

- (1) Preamble, stating the name of the applicant, title of the design, and a brief description of the nature and intended use of the article in which the design is embodied.
- (2) Cross-reference to related applications (unless included in the application data sheet).
- (3) Statement regarding federally sponsored research or development.
- (4) Description of the figure or figures of the drawing.
- (5) Feature description.
- (6) A single claim.



On a lead line, an arrow touching a line to indicate the surface shown by the line looking along the direction of the arrow;

or

(3) To show the direction of movement.

(s) Copyright or Mask Work Notice. A copyright or mask work notice may appear in the drawing, but must be placed within the sight of the drawing immediately below the figure representing the copyright or mask work material and be limited to letters having a print size of .32 cm. to .64 cm. (1/8 to 1/4 inches) high. The content of the notice must be limited to only those elements provided for by law. For example, "©1983 John Doe" (17 U.S.C. 401) and "M* John Doe" (17 U.S.C. 909) would be properly limited and, under current statutes, legally sufficient notices of copyright and mask work, respectively. Inclusion of a copyright or mask work notice will be permitted only if the authorization language set forth in § 1.71(e) is included at the beginning (preferably as the first paragraph) of the specification.

(t) Numbering of sheets of drawings. The sheets of drawings should be numbered in consecutive Arabic numerals, starting with 1, within the sight as defined in paragraph (g) of this section. These numbers, if present, must be placed in the middle of the top of the sheet, but not in the margin. The numbers can be placed on the right-hand side if the drawing extends too close to the middle of the top edge of the usable surface. The drawing sheet numbering must be clear and larger than the numbers used as reference characters to avoid confusion. The number of each sheet should be shown by two Arabic numerals placed on either side of an oblique line, with the first being the sheet number and the second being the total number of sheets of drawings, with no other marking.

(u) Numbering of views.

(1) The different views must be numbered in consecutive Arabic numerals, starting with 1, independent of the numbering of the sheets and, if possible, in the order in which they appear on the drawing sheet(s). Partial views intended to form one complete view, on one or several sheets, must be identified by the same number followed by a capital letter. View numbers must be preceded by the abbreviation "FIG." Where only a single view is used in an application to illustrate the claimed invention, it must not be numbered and the abbreviation "FIG." must not appear.

(2) Numbers and letters identifying the views must be simple and clear and must not be used in association with brackets, circles, or inverted commas. The view numbers must be larger than the numbers used for reference characters.

(v) Security markings. Authorized security markings may be placed on the drawings provided they are outside the sight, preferably centered in the top margin.

(w) Corrections. Any corrections on drawings submitted to the Office must be durable and permanent.

(x) Holes. No holes should be made by applicant in the drawing sheets.

(y) Types of drawings. See § 1.152 for design drawings, § 1.165 for plant drawings, and § 1.174 for reissue drawings.

37 CFR 1.121 Manner of making amendments in application.

(a) Amendments in applications, other than reissue applications. Amendments in applications, other than reissue applications, are made by filing a paper, in compliance with § 1.52, directing that specified amendments be made.

(b) Specification other than the claims and listings provided for elsewhere (§§ 1.96 and 1.825).



(1) Amendment by instruction to delete, replace, or add a paragraph. Amendments to the specification, other than the claims and listings provided for elsewhere (§§ 1.96 and 1.825), may be made by submitting:

(i) An instruction, which unambiguously identifies the location, to delete one or more paragraphs of the specification, replace a deleted paragraph with one or more replacement paragraphs, or add one or more paragraphs;

(ii) Any replacement or added paragraph(s) in clean form, that is, without markings to indicate the changes that have been made;

and

(iii) Another version of any replacement paragraph(s), on one or more pages separate from the amendment, marked up to show all the changes relative to the previous version of the paragraph(s). The changes may be shown by brackets (for deleted matter) or underlining (for added matter), or by any equivalent marking system. A marked up version does not have to be supplied for an added paragraph or a deleted paragraph as it is sufficient to state that a particular paragraph has been added, or deleted.

(2) Amendment by replacement section. If the sections of the specification contain section headings as provided in §§ 1.77(b), 1.154(b), or § 1.163(c), amendments to the specification, other than the claims, may be made by submitting:

(i) A reference to the section heading along with an instruction to delete that section of the specification and to replace such deleted section with a replacement section;

(ii) A replacement section in clean form, that is, without markings to indicate the changes that have been made;

and

(iii) Another version of the replacement section, on one or more pages separate from the amendment, marked up to show all changes relative to the previous version of the section. The changes may be shown by brackets (for deleted matter) or underlining (for added matter), or by any equivalent marking system.

(3) Amendment by substitute specification. The specification, other than the claims, may also be amended by submitting:

(i) An instruction to replace the specification;

(ii) A substitute specification in compliance with § 1.125(b);

and

(iii) Another version of the substitute specification, separate from the substitute specification, marked up to show all changes relative to the previous version of the specification. The changes may be shown by brackets (for deleted matter), or underlining (for added matter), or by any equivalent marking system.

(4) Reinstatement: Deleted matter may be reinstated only by a subsequent amendment presenting the previously deleted matter.

(c) Claims.